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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/504,156	02/13/2000	Jordan Brown	SUNBIP376/P4382	7524
22434	7590	11/10/2004	EXAMINER	
BEYER WEAVER & THOMAS LLP P.O. BOX 778 BERKELEY, CA 94704-0778			KENDALL, CHUCK O	
			ART UNIT	PAPER NUMBER
			2122	

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/504,156

Applicant(s)

BROWN ET AL.

Examiner

Chuck Kendall

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Detailed Action

1. This action is in response to the application filed 07/26/04.
2. Claims 1 – 52 have been examined.

Claim Rejections – 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 7 – 17, 19, 20, 22 – 24, 26, 35, 43 & 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Preisler et al. USPN 5,675,803 (hereinafter “Preisler”) in view of Edwards et al. USPN 6,011,920.

Regarding claim 1, Preisler discloses a computer system providing a set of software system services, a method of providing replacement functions for a the set of software system services, comprising:

the primitive function replicating the another one of the set of software system services in a manner such that implementation of the primitive function reduces or eliminates reliance on one or more system functions capable of becoming non-functional in the event of system error (5: 60-65, see patch sites and patch area instruction, and see 6:27-37); and receiving an identifier associated with the requested primitive function at the one of the set of software system from another one of the set of software system services, thereby enabling the one of the set of

software system services to call the primitive function via the identifier associated with the requested primitive function instead of the another on of set of the software system services (5:60 – 65, and 6:22-25).

Preisler doesn't explicitly disclose receiving the request for the primitive function services and sending the request for the primitive function. Preisler does disclose meeting requests for executing code and in turn updating the required instructions (7:25 – 35). Edwards discloses in an analogous art sending and receiving requests regarding needed functions in a similar environment (Col. 5 and 6, lines 20 – 30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Preisler and Edwards because, being able to send and receive requests would enable updating or replacing code as needed.

Regarding claim 2, the method as recited in claim 1, wherein receiving the identifier associated with the requested primitive function is performed only when the another one of the set of software system services receiving the request for the primitive function (Edwards, Col. 5 and 6, lines 20 – 30) performs a debugging function (Preisler, 6:27 – 37).

Regarding claim 7, see reasoning as previously discussed in claim 1.

Regarding claim 8, the method as recited in claim 7, wherein the primitive function information includes a pointer to the primitive function (Preisler, 5:33).

Regarding claim 9, the method as recited in claim 7, wherein the primitive function information includes state information data to be provided to the primitive function when the primitive function is called (Preisler, 9:5 – 20).

Regarding claim 10, the method as recited in claim 7, further comprising:

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repeating the sending, returning, and storing steps over multiple layers of the stack such that a stack of primitive mechanisms parallel to the stack of software system services is assembled (Preisler, 10:10 – 20).

Regarding claim 11, see claim 4 for reasoning.

Regarding claim 12, see claim 2 for reasoning.

Regarding claim 13, see claim 1 for reasoning.

Regarding claim 14, the system as recited in claim 13, further comprising:

a primitive function calling mechanism adapted for calling one or more primitive software functions associated with the one or more identifiers returned by the primitive function request mechanism (Preisler, 5: 35 – 40).

Regarding claims 15, The system as recited in claim 14, wherein the primitive function calling mechanism is associated with one or more; of the set of software components (Preisler, 6:1 –10, for components see objects).

Regarding claim 16, the system as recited, in claim 13, wherein the one or more of the set of primitive software functions replace one or more of the set of services when the set of services are determined to be inoperative (Preisler, 10:35 – 50, for inoperative see error).

Regarding claim 17, see claim 2 for reasoning also see (Preisler, 9: 9 –15).

Regarding claim 19, see claim 9 for reasoning.

Regarding claim 20, see claim 3 for reasoning.

Regarding claim 22, see claim 1 for reasoning.

Regarding claim 23, see claim 7 for reasoning.

Regarding claim 24, see claim 14 for reasoning.

Regarding claims 26, 35, 43 & 46, which cites similarly as claim 2 see rationale as previously discussed above.

5. Claims 18, 29, 38, & 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Preisler et al. USPN 5,675,803 (hereinafter "Preisler") in view of Edwards et al. USPN 6,011,920 as applied in claims 1, 7, & 13 and further in view of Kirouac et al. USPN 5,155,847.

Regarding claim 18, Preisler and Edwards discloses all the claimed limitations as applied in claim 13. The combination of Preisler and Edwards doesn't explicitly disclose state information associated with each of the set of components, the state information including data that enables the corresponding service to communicate with another one of the set of services. However, Kirouac does disclose this in an analogous art (2: 13 – 17, see verify), stating that verifying is done to make ensure software has been properly upgraded. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Preisler and Edwards with Kirouac because, providing state/verification information during data transmission ensures efficient transmission of data.

Regarding claims 29, 38 and 49, Preisler as modified discloses all the claimed limitations as applied in claim 1, 7 and 13. The combination of Preisler and Edwards doesn't explicitly disclose polling (requests). However, Kirouac does disclose this feature in an analogous art (9: 15 – 20), stating that " the central and remote computer systems is capable of upgrading the software used in the remote computer system at any time and has multi-tasking capabilities to allow a plurality of remote computer systems to gain access to the central computer system at the same time.". Therefore, it would have been obvious to one of ordinary skill in the art at the time

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the invention was made to combine Preisler and Edwards with Kirouac because, being able to receive or request from multiple sources enable more efficient data communication.

5. Claims 3 – 6, 21, 25, 27, 28, 33, 34,36, 37, 42, 44, 45, 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Preisler et al. USPN 5,675,803 (hereinafter “Preisler”) in view of in view of Edwards et al. USPN 6,011,920 as applied in claims 1,7, & 13 and further in view of Ahlin et al. USPN 5,321,840.

Regarding claims 3, 27,28, 33, 36, 37, 42, 44, 47 and 48 Preisler, and Edwards disclose all the claimed limitations as applied in claims 1, 7 and 13. The combination of Preisler and Edwards doesn't explicitly disclose input and output functions. However, Ahlin does disclose this functionality in an analogous art (12: 3 – 10 see display functions and keyboard functions), stating that the bios which supports the input and output functionality of the system, e.g. keyboard, can be downloaded from a Network when needed. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Preisler, and Edwards with Ahlin because, updating the bios would enable modification of keyboard functions.

Regarding claim 4, which recites similarly to claim 1, see reasoning above.

Regarding claim 5, method as recited in claim 4, further comprising: when the another one of the layers is responsible for performing at least one of input and output, sending another primitive function request from the another one of the layers in the stack of software system services to a lower layer in the stack of software system services (Preisler, 11:20 – 25).

Regarding claim 6, the method as recited in claim 4, further comprising:

propagating the primitive function request down the one or more lay of the stack of software system services (Preisler, 7:1 – 20).

Regarding claims 21, 25, 34 & 45 Preisler and Edwards disclose all the claimed limitations as applied in claims 1, 7 and 13. The combination of Preisler and Edwards doesn't explicitly disclose providing keyboard functionality. However, Ahlin does disclose this functionality in an analogous art (12: 3 – 10), stating that the bios which supports the input and output functionality of the system, e.g. keyboard, can be downloaded from a Network when needed. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Preisler and Edwards with Ahlin because, updating the bios would enable modification of keyboard functions.

6. Claims 31, 40 & 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Preisler et al. USPN 5,675,803 (hereinafter "Preisler") in view of Edwards et al. USPN 6,011,920 as applied in claims 1, 7 and 13 and in view of Glasser et al. USPN 5,793,980.

Regarding claims 31, 40 & 51 Preisler, and Edwards discloses all the claimed limitations as applied in claims 1, 7 & 13. The combination of Preisler, and Edwards does not disclose delay loops. However, Glasser does disclose this function in an analogous art (9: 60), where Glasser uses the delay loop to prolong selecting until to accommodate the user. Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to combine, Preisler, and Edwards with Glasser because, a delay loop would enable a user to delay a decision in the event of a query.

7. Claims 30, 32, 39, 41, 50 & 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Preisler et al. USPN 5,675,803 (hereinafter "Preisler") in view of Edwards et al. USPN

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6,011,920 as applied in claims 1, 7 and 13 and further in view of Halpern et al. USPN 6,282,711 B1.

Regarding claims 30, 39 & 50, Preisler as modified discloses all the claimed limitations as applied in claims 1, 7 and 13 above. The combination of Preisler and Edwards doesn't disclose without interrupts. However, Halpern does disclose this functionality (4: 5 – 15, see if interrupted continues), stating that the system transmits data without having to retransmit in the event of an interrupt thereby preventing retransmission of already transmitting data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Preisler and Edwards with Halpern because, transmitting data without interrupts makes transmitting data to a remote location more efficient.

Regarding claim 32, 41 & 52, Preisler as modified discloses all the claimed limitations as applied in claims 1, 7 and 13 above. The combination of Preisler and Edwards doesn't disclose without timers. However, Halpern does disclose this functionality (8: 55 – 60), stating that downloading software without time restrictions eliminates the penalty of receiving unnecessary data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Preisler and Edwards with Halpern because, transmitting data without time restrictions or timers makes transmitting data to a remote location more efficient.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

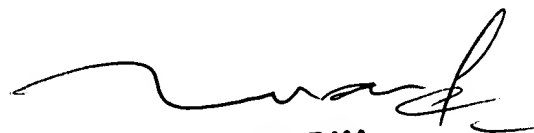
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Kendall whose telephone number is 571-2723698. The examiner can normally be reached on 10:00 am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on 571-2723695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CK



TUAN DAM
SUPERVISORY PATENT EXAMINER